

REMARKS

Claims 1-43 are pending in the present application. Claims 1, 8, 10, 11, 12, 17, 20, 21, 26, 33, 34, 35, and 36 are independent claims.

Claims 17-18 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Regarding claim 17, the rejection proffers that the connection or arrangement between the membrane/sorbent is not defined. It is noted that neither claim 17 nor 18 recites "sorbent". Claim 17, however, has been amended to define the arrangement between the membrane and the pump. Claim 18 depends from claim 17.

Claim 19 has been amended to correct the antecedent basis issue. Claim 20 depends from claim 19.

Regarding claim 21, the rejection proffers that it is unclear as to the pump system arrangement. Claim 21 has been amended accordingly.

Reconsideration of the rejection, in light of the amendments, leading to withdrawal of the rejection and allowance of the claims is respectfully requested.

Although not rejected, it is noted that claim 2 has been amended to recite "transport liquid" to correct an antecedent basis issue.

The Examiner's statement that claims 8-18, 20-22, 25, and 33-43 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. As discussed above, claims 17, 19, and 21 have been amended to address the 112, second paragraph rejection above and have been amended to include all of the limitations of the base claim and any intervening claims. Claim 18 depends from claim 17; claim 20 depends from claim 19; and claim 22 depends from claim 21.

Claims 8, 10, 11, 12, 20, 33, 34, 35, and 36 are amended to include all of the limitations of the base claim and any intervening claims. Claim 9 depends from claim 8; claims 13-16 and 25 depends from claim 12; and claims 37-43 depend from claim 36. Allowance of claims 8-18, 20-22, 25, and 33-43 is requested.

Claims 1-7, 19, 23, 24, 26, and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fecondini et al (5,045,207). Fecondini et al. discloses a device for concentrating solute-containing solutions by filtration.

The Examiner statement that Fecondini et al. "is not described as a pump, or as having the space (permeate space) maintained at a constant vapor pressure of the transport liquid, as claimed in the present invention" (Page 3, lines 17-18 of the Office Action) is acknowledged. To further clarify the present invention, claims 1 and 26 have each been amended to recite that the space is a gas space and that a continuous and constant loss of vapour results in a vapour pressure below a saturation vapour pressure, thus leading to an essentially constant flow rate through the membrane. Support of the amendment is found in the specification at page 2, third paragraph, page 8 second paragraph, page 9 second paragraph - page 10 first paragraph, page 14 lines 5-9 and in the drawings. No new matter is added by virtue of the amendments.

The Examiner's statement that "the structural elements seem to compare to each corresponding elements of claims 1, 3, 4, 5, 6, 7". (page 3, lines 19-20 of the Office Action) is respectfully traversed, particularly in light of the amendments to the claims. It is submitted that the concentrating device disclosed by Fecondini et al. runs contrary to the critical gas space of the claimed pump. Instead of a gas space, Fecondini et al. discloses a retaining well filled with concentrated liquid retentate. See, Column 8 lines 10-16. Fecondini et al. teaches that the retaining well is designed to hold a precisely predetermined quantity of concentrated macromolecular liquid retentate for removal at the convenience of the operator. It is further noted that the retaining well fills with liquid retentate regardless of whether the solvent is drawn through the membrane by the absorbent layer, or with a vacuum. See, Column 7 line 55 to Column 8 line 11.

One skilled in the art would readily appreciate that this retaining well that holds liquid retentate is in direct contrast to the pump of amended claims 1 and 26 that require a gas space having an essentially constant vapour pressure of evaporated transport liquid, wherein a continuous and constant loss of vapour results in a vapour pressure below a saturation vapour pressure, thus leading to an essentially constant flow rate through the membrane. Accordingly, it is submitted that one skilled in the art, upon reading Fecondini et al. would be led in a direction divergent from the path that the applicants took.

It is submitted that the teaching or suggestions, as well as the expectation of success, must come from the prior art and not applicant's disclosure. With this in mind it becomes apparent that Fecondini et al. when fairly considered for all that they teach, do not contain the requisite suggestion or incentive that would have motivated

the skilled artisan to modify Fecondini et al. to meet the requirements of claim 1, namely a pump comprising "- a channel which is at least partially filled with a transport liquid (3) - a membrane (4, 12) at one opening of the channel that can be wetted by the transport liquid, - a gas space having an essentially constant vapour pressure of evaporated transport liquid located at the side of the membrane opposite to the transport liquid, wherein a continuous and constant loss of vapour results in a vapour pressure below a saturation vapour pressure, thus leading to an essentially constant flow rate through the membrane". Claims 2-7, 19, 23, and 24 depend from amended claim 1.

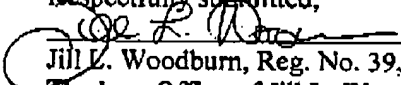
It is also submitted that Fecondini et al. fails make obvious the biosensor recited in amended claim 26, namely a pump comprising "a housing defining a gas space and including a channel, the channel being at least partially filled with a transport liquid, and a membrane positioned in the housing, the membrane including a first side facing toward the liquid and a second side facing the gas space, wherein the gas space has an essentially constant vapour pressure of evaporated transport liquid, wherein a continuous and constant loss of vapour results in a vapour pressure below a saturation vapour pressure, thus leading to an essentially constant flow rate through the membrane". Claims 27-32 depend from amended claim 26.

It is respectfully contended that the differences between the claimed invention and the cited art are such that Applicants' invention as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made. It is respectfully contended that the claimed invention meets the test of patentability under 35 U.S.C. 103(a). Entry of the amendments leading to reconsideration of the rejection of the claims and withdrawal of the rejection is respectfully requested.

The claims as submitted herein are believed to be in condition for allowance, and allowance of the application is respectfully requested. In addition, it is requested that any fees due be charged to Deposit Account Number 02-2958 with reference to (RDID 0061 US).

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Respectfully submitted,


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